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HIGHLY ORIENTED PERPENDICULAR
MAGNETIC RECORDING MEDIA

ABSTRACT OF THE DISCLOSURE

A perpendicular magnetic recording medium including an interlayer structure for crystallographically orienting a layer of a hexagonal close-packed (*hcp*) perpendicular magnetic recording material formed thereon, comprising in overlying sequence from a surface of a magnetically soft underlayer:

5 (1) a first crystalline layer of a material having a first lattice parameter and a strong preferred growth orientation;

 (2) a second crystalline layer of a material having a second lattice parameter and the same strong preferred growth orientation as the first crystalline layer; and

10 (3) a third crystalline layer of an *hcp* material, having a [0002] lattice parameter similar to or different from that of the second lattice parameter of the second crystalline layer and a strong <0002> preferred growth orientation, wherein:

 the second crystalline layer has a lower interfacial energy with the first
15 crystalline layer and a higher interfacial energy with the third crystalline layer, owing to a lower surface energy of the first crystalline layer and a higher surface energy of the second crystalline layer.